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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,057	12/08/2005	Rainer Glauning	3527	9833
7590 Striker Striker & Stenby 103 East Neck Road Huntington, NY 11743				
			EXAMINER	
			ONEILL, KARIE AMBER	
			ART UNIT	PAPER NUMBER
			1795	
			MAIL DATE	DELIVERY MODE
			01/29/2009	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/560,057

**Applicant(s)**

GLAUNING ET AL.

**Examiner**

Karie O'Neill

**Art Unit**

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 5-8 and 10-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-8, 10-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/003)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date 9-3-08

**DETAILED ACTION**

***Response to Amendment***

1. Applicant's amendment filed on November 20, 2008, was received. Claims 5, 11 and 12 have been amended. Claims 1-4 and 9 have been cancelled. Therefore, Claims 5-8 and 10-12 are pending in this office action.

***Information Disclosure Statement***

2. Information disclosure statement (IDS), submitted September 3, 2008, has been received and considered by the examiner.

***Claim Rejections - 35 USC § 112***

3. The rejection of Claim 11 under 35 U.S.C. 112, second paragraph, as being indefinite has been overcome based on the amendment to the claim.

***Claim Rejections - 35 USC § 102***

4. The rejection of Claims 5-8 and 10-12 under 35 U.S.C. 102(b) as being anticipated by Walker et al. (US 6,004,689), has been overcome based on the amendments to the claims.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5-8 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al. (US 6,004,689) in view of Takeno et al. (US 6,428,925 B1).

With regard to Claim 5, Walker et al. discloses in Figures 1, 2 and 9, a battery pack (11), comprising a housing (10); a plurality of battery cells (22) located in an interior of said housing (10) in compartments (20, 30, 40, 50, 60, 70) and having longitudinal axes or a depth; and heat-diffusing means, or openings (86,88), for diffusing heat or allowing ventilation from said battery cells (22), said heat diffusing means (86,88) including an interior wall of said housing which is peripherally adjacent to said battery cell compartments (20, 30, 40, 50, 60, 70) from outside of said battery cell compartments (20, 30, 40, 50, 60, 70) and is shaped so that it forms at least one peripherally closed and uninterrupted duct which extends parallel to said longitudinal axes (depth) of said battery cell compartments (20, 30, 40, 50, 60, 70) from one axial side, top (80), to another axial side, bottom (90), of said housing (10) for passing a heat-diffusing medium through the depth of or from one axial side, top (80), to another axial side, bottom (90), of said housing (10) between said battery cell compartments (20, 30, 40, 50, 60, 70) (column 4 lines 14-59). Walker et al. does not disclose wherein said

heat diffusing means is open outside at said one and another axial sides and is closed off in its entirety from the interior of said housing in which said battery cells are located.

Takeno et al. discloses in Figures 1 and 12, a battery pack having a plurality of battery cells (1) stored side by side in a case (2). The case (2), in particular, includes a bottomed trough (2) and a lid (4), the trough (2) having a space as a cell storage portion defined between inner wall portion (21) and outer wall portion (22) and a space as a hollow (6) surrounded by the inner wall portion (21) and penetrating the trough from top to bottom (column 4). The hollow (6) is open to the outside on each axial end of the battery case and is closed off in its entirety from the interior of the battery case in order to introduce air into the hollow (6) to air-cool the inner wall portion (21) of the battery case (2) during charge (column 5 lines 11-14). In the case where a base plate (7) is expected to be attached to the underside of the battery pack, an aperture having the same shape as the hollow (6) may be formed in the central portion of the base plate (7) (column 5 lines 64-67).

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to have a hollow portion extend parallel to the battery cells, open outside at both axial ends of the battery case and be closed off entirely from the interior of the battery case of Walker et al., because Takeno et al. teaches that the hollow is used to introduce air to cool the batteries located in the battery case and to prevent a rise in temperature of the battery cells in order to prevent corrosion of the electrolyte in the batteries so that the occlusion/releasing capacity does not lower (column 1 lines 50-62).

With regard to Claims 6 and 10, Walker et al. discloses in Figure 2, wherein said at least one duct (86,88) has wall regions that rest in form-locking fashion against said battery cell compartments (20, 30, 40, 50, 60, 70) that are located adjacent to said wall regions, and wherein said at least one duct (86,88) is located in a nip between individual ones of said battery cell compartments (20, 30, 40, 50, 60, 70).

With regard to Claim 7, Walker et al. discloses wherein said wall regions of said at least one duct (86, 88) include at least partly a heat-conducting material. Walker et al. discloses that ducts (86, 88) allow for ventilation through the top (80) along the entire depth of the compartments (20, 30, 40, 50, 60, 70) and an optional temperature sensor may be inserted into the ducts (86, 88) to monitor if the battery is operating at an unsafe or otherwise undesirable temperature, which means that the ducts (86, 88) are heat conducting (column 4 lines 37-46).

With regard to Claim 8, Walker et al. discloses in Figure 2, wherein said wall regions of said at least one duct (86,88) that include said heat-conducting material are located in the center of the housing and recessed so far from outer wall regions of said housing (10) that contact with said heat-conducting material by a user is prevented.

With regard to Claim 11, Walker et al. discloses in Figures 1, 2, and 9, a battery pack (11 ), comprising a housing (10); a plurality of battery cells (22) located in an interior of said housing (10) in compartments (20, 30, 40, 50, 60, 70) and having longitudinal axes or a depth; and heat-diffusing means, openings (86,88), for diffusing heat or allowing ventilation from said battery cells (22), said heat diffusing means (86,88) including an interior wall of said housing which is peripherally adjacent to said

battery cell compartments (20, 30, 40, 50, 60, 70), from outside of said battery cell compartments (20, 30, 40, 50, 60, 70), and is shaped so that it forms at least one peripherally closed and uninterrupted duct (86,88) which is located between a plurality of individual ones of said battery cell compartments (20, 30, 40, 50, 60, 70) from one axial side, top (80), to another axial side, bottom (90), of said housing (10), extends parallel to said longitudinal axes (depths) of said battery cells (22) and passes a heat-diffusing medium through the depth of or from one axial side, top (80), to another axial side, bottom (90) of said housing (10) between said battery cells (22) and battery cell compartments (20, 30, 40, 50, 60, 70) (column 4 lines 14-59).

Walker et al. does not disclose wherein said heat diffusing means is open outside at said one and another axial sides and is closed off in its entirety from the interior of said housing in which said battery cells are located. Takeno et al. discloses in Figures 1 and 12, a battery pack having a plurality of battery cells (1) stored side by side in a case (2). The case (2), in particular, includes a bottomed trough (2) and a lid (4), the trough (2) having a space as a cell storage portion defined between inner wall portion (21) and outer wall portion (22) and a space as a hollow (6) surrounded by the inner wall portion (21) and penetrating the trough from top to bottom (column 4). The hollow (6) is open to the outside on each axial end of the battery case and is closed off in its entirety from the interior of the battery case in order to introduce air into the hollow (6) to air-cool the inner wall portion (21) of the battery case (2) during charge (column 5 lines 11-14). In the case where a base plate (7) is expected to be attached to the underside of the

battery pack, an aperture having the same shape as the hollow (6) may be formed in the central portion of the base plate (7) (column 5 lines 64-67).

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to have a hollow portion extend parallel to the battery cells, open outside at both axial ends of the battery case and be closed off entirely from the interior of the battery case of Walker et al., because Takeno et al. teaches that the hollow is used to introduce air to cool the batteries located in the battery case and to prevent a rise in temperature of the battery cells in order to prevent corrosion of the electrolyte in the batteries so that the occlusion/releasing capacity does not lower (column 1, lines 50-62).

With regard to Claim 12, Walker et al. discloses in Figures 1, 2 and 9, a battery pack (11), comprising a housing (10); a plurality of battery cells (22) located in battery cell compartments (20, 30, 40, 50, 60, 70) in an interior of said housing and having longitudinal axes or a depth; and heat-diffusing means, or openings (86,88) for diffusing heat or allowing ventilation from said battery cells (22), said heat diffusing means (86,88) including an interior wall of said housing which is peripherally adjacent to said battery cell compartments (20, 30, 40, 50, 60, 70), from outside of said battery cell compartments (20, 30, 40, 50, 60, 70), and is shaped so that it forms at least one peripherally closed and uninterrupted duct (86,88) which is located between a plurality of individual ones of said battery cell compartments (20, 30, 40, 50, 60, 70), extends parallel to said longitudinal axes (depths) of said battery cells (22), for passing of a heat-diffusing medium from one axial side to another axial side of said housing of said



battery cells (22) and battery cell compartments (20, 30, 40, 50, 60, 70) (column 4 lines 14-59).

Walker et al. does not disclose wherein said heat diffusing means is open outside at said one and another axial sides and is closed off in its entirety from the interior of said housing in which said battery cells are located. Takeno et al. discloses in Figures 1 and 12, a battery pack having a plurality of battery cells (1) stored side by side in a case (2). The case (2), in particular, includes a bottomed trough (2) and a lid (4), the trough (2) having a space as a cell storage portion defined between inner wall portion (21) and outer wall portion (22) and a space as a hollow (6) surrounded by the inner wall portion (21) and penetrating the trough from top to bottom (column 4). The hollow (6) is open to the outside on each axial end of the battery case and is closed off in its entirety from the interior of the battery case in order to introduce air into the hollow (6) to air-cool the inner wall portion (21) of the battery case (2) during charge (column 5 lines 11-14). In the case where a base plate (7) is expected to be attached to the underside of the battery pack, an aperture having the same shape as the hollow (6) may be formed in the central portion of the base plate (7) (column 5 lines 64-67).

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to have a hollow portion extend parallel to the battery cells, open outside at both axial ends of the battery case and be closed off entirely from the interior of the battery case of Walker et al., because Takeno et al. teaches that the hollow is used to introduce air to cool the batteries located in the battery case and to prevent a rise in temperature of the battery cells in order to prevent corrosion of the electrolyte in

the batteries so that the occlusion/releasing capacity does not lower (column 1 lines 50-62).

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 5-8 and 10-12 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karie O'Neill whose telephone number is (571)272-

8614. The examiner can normally be reached on Monday through Friday from 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Ruthkosky/  
Primary Examiner, Art Unit 1795

Karie O'Neill  
Examiner  
Art Unit 1795

KAO